

#4335
Q

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

June 17, 2013

TO: Internal File

THRU: Steve Christensen, Permit Supervisor *SCC*

FROM: James Owen, Lead/Engineer *JO*

RE: Expansion of Lift #5, Canyon Fuel Company, Sufco Mine, C/041/0002, Task #4335

SUMMARY:

On May 28, 2013 the Utah Division of Oil Gas & Mining received an application for an amendment to the Mining & Reclamation Plan (MRP) of the Sufco Mine. The application seeks approval to increase the area of Lift #5 at the Waste Rock Disposal Site.

This memo addresses the application's compliance with the engineering (R645-301-500) and bonding (R645-301-800) sections of the Utah Coal Mining Rules. Contents and information provided are not sufficient enough to meet the minimum requirements of this section of the Utah Coal Mining Rules. The following deficiencies were identified:

R645-301-536.100, Please modify Volume 3 to include information clarifying the total current volume of waste being stored at the disposal facility, the current available capacity and the increase in capacity that will result from the expansion of Lift #5.

TECHNICAL MEMO

TECHNICAL ANALYSIS:

OPERATION PLAN

SPOIL AND WASTE MATERIALS

Regulatory Reference: 30 CFR Sec. 701.5, 784.19, 784.25, 817.71, 817.72, 817.73, 817.74, 817.81, 817.83, 817.84, 817.87, 817.89; R645-100-200, -301-210, -301-211, -301-212, -301-412, -301-512, -301-513, -301-514, -301-521, -301-526, -301-528, -301-535, -301-536, -301-542, -301-553, -301-745, -301-746, -301-747.

Analysis:

The estimated number of total surface acres to be affected will be increased from 48.432 to 49.136. Growth medium will be removed to a minimum depth of 18 inches in the approximately 0.54 acre area of the expansion. The growth medium will either be used immediately to reclaim a portion of the #5 lift or will be stockpiled on Topsoil Storage No. 2 to be used for reclamation in the future. Growth medium to be removed is estimated to be 1,300 yds.

The original fill volume was estimated at 10,000 tons or 8,200 cubic yards per year. The average fill volume from 1996 through 2012 was 5,180 tons per year and ranged from 156 to 27,135 tons per year. At this projected rate, once the fill bench-slope configuration is established about 1.5 acres should be filled and reclaimed every six to nine years. The fill is expected to be completed in 2016.

The amendment does not provide information about the total current volume of waste being stored at the facility, the current available capacity, or the capacity increase that will result from the expansion.

Findings:

Contents and information provided are not sufficient enough to meet the minimum requirements of this section of the Utah Coal Mining Rules. The following deficiencies were identified:

R645-301-536.100, Please modify Volume 3 to include information clarifying the total current volume of waste being stored at the disposal facility, the current available capacity and the increase in capacity that will result from the expansion of Lift #5.

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

Analysis:

Sediment will be controlled by construction of diversion ditches around the area to be disturbed and through the use of berms, and other sediment control devices such as silt fences. Ditch No. 1 will be moved to the perimeter of the expanded lift and will be constructed to the currently approved design calculations. The concrete of the existing Ditch No. 1 will be broken up and left in place, to be covered with waste rock. Undisturbed Diversion No. 2 will be moved closer to the hillside on the west and will be constructed to the currently approved design.

The maximum flow resulting from a 10 year, 24 hour storm was used as the design flow for each of the diversions. Ditches No. 1 and 2 conveying runoff to the sediment pond shall be trapezoidal shaped in cross-section. Both ditches have a bottom width of 12 inches and side slopes of 1:1; the design will carry the 4.42 cfs of runoff expected from the disturbed area with 0.3 feet of freeboard. Design calculations are included in Appendix III.

Findings:

Contents and information provided are sufficient enough to meet the minimum requirements of this section of the Utah Coal Mining Rules.

MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-512, -301-521, -301-542, -301-632, -301-731, -302-323.

Analysis:

The amendment includes properly certified and updated versions of Map 1, Map 2(V5) and Map 4(V3). The maps provide information on the property ownership as well as the operation and site plan for the Expansion of the Waste Rock Disposal Site.

Findings:

Contents and information provided are sufficient enough to meet the minimum requirements of this section of the Utah Coal Mining Rules.

TECHNICAL MEMO

RECLAMATION PLAN

BACKFILLING, GRADING, AND APPROXIMATE ORIGINAL CONTOUR RESTORATION

Regulatory Reference: 30 CFR Sec. 784.15, 785.15, 785.16, 817.102, 817.107, 817.133; R645-301-234, -301-412, -301-413, -301-512, -301-531, -301-533, -301-553, -301-536, 301-537, -301-542, 301-552, -301-553, -301-731, -301-732, -301-733, -301-764.

Analysis:

Fill will be placed in segments using trucks, loaders, other equipment and compaction equipment. These segments will vary in length and width and are depicted in Map 4. The first segment was placed on the southeast side of the disposal area. Additional segments were placed beginning on the east side and working to the west. The fill was and will continue to be built up to approximate original contours as shown on Map 2. The active area of the fill consists of a pad where the haul road and compaction activities are taking place with an associated upslope and down slope.

Findings:

Contents and information provided are sufficient enough to meet the minimum requirements of this section of the Utah Coal Mining Rules.

BONDING AND INSURANCE REQUIREMENTS

Regulatory Reference: 30 CFR Sec. 800; R645-301-800, et seq.

Analysis:

The operator currently has a \$2,874,000 surety bond in place. The principal holder is Argonaut Insurance Company. As of January 14, 2013, the Division estimates that the bond about required for reclamation is \$2,625,000. This leaves a positive difference of \$249,000 (8.66%). The total estimates cost to reclaim the Waste Rock Disposal site is \$52,770. The expansion of lift #5 is not expected to cause any significant changes in the required bond amount.

Findings:

Contents and information provided are sufficient enough to meet the minimum requirements of this section of the Utah Coal Mining Rules.

RECOMMENDATIONS:

Approval is not recommended at this time. Deficiencies must be addressed prior to approval.

O:\041002.SUF\WG4335\WG4335jco.doc